REVIEW OF RELATED LITERATURE

The second chapter review of literature helps the researcher in deciding the direction of the research. The research scholar has gone through various available studies related to the problem at the Library of M. S. M’s College of Physical Education, Aurangabad; Yogi Vivekanand Nisargopchar Shikshan Va Sanshodhan Kendra, Maheshmal and other Libraries. The relevant studies found by the research scholar will be enumerated in this study.

The researcher has attempted to review the available research studies employed by other researchers to get an insight into the methods, measurements; subjects etc. will be included in the present study. Santosh, K. Kohli, T. and Batani, D. (2005) evaluated the impact of yogic shatkriyas and pranayama on stress of senior secondary students. The sample of the present comprised 60 secondary school students, with high academic records. The pre and post experimental and control group design was followed. There were two experimental and one control group. One group was provided training through shatkriyas and other through pranayama. Control group was not provided any training. Shatkriyas and Pranayama both reduce all the components of academic stress of students with equal effectiveness except academy anxiety which was reduced more effectively by Pranayama as compared to Shatkriyas.

Bhiman (2011) studied the effect of pranayama on stress and cardiovascular autonomic function. The stress either physical or mental, leads to cardiovascular morbidity. Newly admitted medical students are likely to be exposed to various stresses like change of environment, demanding medical education and different teaching protocol in a medical college. Pranayama is known since ancient times to relieve stress and stabilize autonomic function of the body. Therefore it was decided to study effect of Pranayama on stress and cardiovascular autonomic function. The subjects were first M.B.B.S students and the sample size was 59 consisting of 27 males and 32 females. The group of students thus selected was briefed about the study. After the orientation session, informed written consent was taken, stress questionnaire was put and the autonomic function tests were done. This was followed by practice of Pranayama for 2 months, 1 hour/day for 5 days/ week and again stress questionnaire was put and the autonomic function tests were performed on the study group. The above tests were done before and after the practice of Pranayama. The results obtained were analyzed using SPSS software. The stress level has reduced after 2 months of practicing various pranayama as evident by decrease in total stress.
score which is highly significant. VLF and LF in n.u have reduced significantly after practice of pranayama signifying reduction in sympathetic drive to heart. HF in n.u has increased significantly after practice of pranayama for 2 months showing the increase in parasympathetic output to the heart. LF/ HF ratio reduced significantly after 2 months of practice of pranayama indicating a better sympatho-vagal balance with resting balance tilting toward better parasympathetic control.

Praveenakumar et al. (2011) studied the effect of yogic pranayama and meditation on selected physical and physiological variables. Thirty boys in the age group of 12 to 15 years were selected from Karnatak university department of yoga, Dharwad. The subjects were divided into two groups namely control group and Experimental group. The Experimental group was given yogic pranayama and meditation for a period of twelve weeks, both morning and evening on alternative days in a week. The control group did not participate in yogic pranayama and meditation training programmer. The collected data were statistically analyzed by using analysis of covariance (ANCOVA). The experiment group had a significant improvement on the selected physical and physiological variables except systolic and diastolic Blood pressure than that of control group.

Kirnoff (1987) evaluated that the life stress and social support as predictors of Athletic injury. The purpose of this study was to determine if life stress and social support are predictive of athletic injury. The athletic life Exp survey (Passer and Seese, 1983) and a social support Functions scale (Pines, Aronson and Kafry, 1981) were admin to 170, M and F, varsity athletes. The sample included athletes from 7 sports: volleyball, gymnastics, hockey, soccer, cross-country, Track and wrestling. The result of the study suggests that the frequency of injury is predictable on the basis of life stress. They also suggest that the quality of emotional social support functions ‘buffers’ the influence of life stress.

Harries (1980) Conducted a study to see the effects of relaxation training on the stress levels of Female athletes. 29 Female athletes from 3 spring, 1979, women’s intercollegiate teams at NMSU Volunteered as Ss. The 3 groups (control, autogenic training and progressive relaxation) underwent 6 weeks of training. Ss’ stats and competitive trait levels were determined
through the study by 1) digital skin temp. 2) Anxiety self assessment 3) state Anxiety inventory (SAI) and 4) SCANT. No significant difference (p>0.05) were found among the 3 groups anxiety measures following training sig cor relation (p < 0.05) were determined between several anxiety measurements but were restricted to assessments by the same instrument.

Sethi et al. (2011) studied the effect of Body Mass Index on work related musculoskeletal discomfort and occupational stress of computer workers in a developed ergonomic setup. Work urgency, accuracy and demands compel the computer professionals to spend longer hours before computers without giving importance to their health, especially body weight. Increase of body weight leads to improper Body Mass Index (BMI) may aggravate work related musculoskeletal discomfort and occupational psychosocial stress. The objective of the study was to find out the effect of BMI on work related musculoskeletal discomforts and occupational stress of computer workers in a developed ergonomic setup. A descriptive inferential study has been taken to analyze the effect of BMI on work related musculoskeletal discomfort and occupational-psychosocial stress. A total of 100 computer workers, aged 25-35 years randomly selected on convenience from software and BPO companies in Bangalore city, India for the participation in this study. BMI was calculated by taking the ratio of the subject’s height (in meter) and weight (in kilogram). Work related musculoskeletal discomfort and occupational stress of the subjects was assessed by Cornell University’s musculoskeletal discomfort questionnaire (CMDQ) and occupational stress index (OSI) respectively as well as a relationship was checked with their BMI. A significant association (p < 0.001) was seen among high BMI subjects with their increase scores of musculoskeletal discomfort and occupational stress. From this study, it has been concluded that, there is a significant effect of BMI in increasing of work related musculoskeletal discomfort and occupational-psychosocial stress among computer workers in a developed ergonomic setup.

Robson (2011) examine the efficaciousness of yoga and exercise in acutely improving mood in non-depressed participants. This study involved female participants of a yoga group (n=8) and an exercise group (n=7). Participants completed a Profile of Mood States (POMS) questionnaire before undertaking a sixty minute class. An identical POMS questionnaire was then completed immediately after the class had ended. There was a main effect of trial (p=0.049) on anger; participants of the exercise class displayed higher levels of anger than participants of
yoga. There was no main effect on fatigue for trial or time (p=0.244 and p=0.270 respectively). There was a main effect of time on tension/anxiety (p<0.001), depression/dejection (p=0.009), anger/hostility (p=0.011), vigour/activity (p<0.001) and confusion/bewilderment (p=0.001). Both yoga and exercise improved these mood states. Exercise and yoga significantly increase vigour, and reduce depression, tension, confusion, anxiety and anger. Both are invigorating to participants and provide an uplifting effect and increase in feelings of positivity; they would be a viable method of self-treatment for people experiencing low mood. With further research, exercise and yoga would be a viable option of an alternative or adjunct to medication.

Shrama, P; Kendrick, K; Daniel, R. (2009) evaluated the effect of Hatha Yoga on Stress and Recovery of Female Collegiate Athletes PURPOSE: To determine the acute effect of Hatha yoga participation on stress and recovery of collegiate female athletes (cross country, soccer and volleyball). METHOD: Twenty five healthy female athletes were randomly divided into two groups, experimental (Yoga, Y; n=14, age = 19.3±1.3 years) and control (No Yoga, C; n= 11, age = 19.7± 3.6 years). Hatha yoga was performed on four consecutive days, at 30-40 minutes per session, and consisted of breathing exercise, mediation, asanas/ postures, sun salute, and relaxation. Participants continued usual training with their respective teams. The Recovery-stress Questionnaire for Athletes (RESTQ-Sport) was completed 2 days before and one day after four consecutive days of yoga (Y) or no yoga (C). RESULTS: There was a significant decrease (p=008) in global stress scores (2.8+ to 2.01+ 68) for Y, but not C (2.60+55) and C (2.95+ 70 to 2.95+61, p= 527) were unchanged pre to post. CONCLUSION: Hatha yoga practice appears to decrease stress in collegiate female athletes. Thus, appropriate incorporation in the training program may reduce negative effects of overtraining.

Michalsen, et al., (2005). Investigated a study of Rapid stress reduction and anxiolysis among distressed women as a consequence of a three-month intensive yoga program. METHOD: A controlled prospective non-randomized study was conducted in 24 self-referred female subjects who perceived themselves as emotionally distressed. During the yoga course, subjects attended two-weekly 90-min Iyengar yoga-training. Demonstrated significant improvements in
perceived stress, State and Trait Anxiety, well-being, vigor, fatigue and depression. Physical well-being also increased, and those subjects suffering from headache or back pain reported marked pain relief. Salivary cortisol decreased significantly after participation in a yoga class.

Kulkarni, D.D. (2007) conducted the study to see the effect of vastradhauti on stress and peripheral immune response. This is self control pre-experimental study which was conducted on five male health students of S.G. College of Yoga, Kaivalyadhama, Lonavale (mean age grup 22.5+4.69 years). The subjects were tested for skin mille voltage (skin mV) response immediately after Vastradhauti and differential count as well as hemoglobin percentage as a result of long team cumulative effect of yoga with and without Vastradhauti. The result revealed non-significant decres in sink mV responses on all electrical loads, that suggest a decreased stress response and significant increase in the differential count [polymorphs, (t=3.36) at 0.01 and Lymphocytes (t= 2.75) at 0.05 level during Mid- and Posta- test. Such result indicates better immune response. This concludes that Vastadhauti is a stress free gastric emptying technique and enhances peripheral immune response.

Kulkarni, D.D. (2006) evaluated the skin mill voltage measure as stress response indicator in yoga and non-yoga subjects. This study was conducted on the yoga practitioners of mixed genders on two separate sets. In Set-A the group I consists of yoga entrants (n=136) in the age range of 20-40 years having completed yoga course of various duration ranging from 45 days to one year and group II with yoga professionals (n=16) in the age range 40-60 years, practicing yoga at least above five years, whereas in the set B, the group III consists of professional yoga instructors (n=6) teaching yoga at least s decade and group IV is the control group (n=12) that includes non academic persons in the age group of 25-50 years, were tested for tress response level. The skin mill voltage (Skin mV) response data on four loads (electrical) viz. 10.R, 100R, 1K and 10K were collected on perception instrument. The results of A and B sets showed non- significant decrease in all loads indication on overall reduction in stress response. However, magnitude wise, the skin mV response in yoga experts of set A and yoga instructions of set B were higher compared to yoga entrants and control groups, inferring better relaxation response. This study concludes that the skin mV response can only indicate the stress response change. But the skin mV response cannot grade the intensity of stress response. It was therefore thought desirable to undertake this study with a view to co-relate skin mV response as the indicator of
stress responses and testing the efficacy of yoga practice on the stress response. This can also useful to detect stress responses in various professionals. A random sampling technique was used to get the sample of yoga practitioners of mixed gender in two paired sets A and B with three different faculties such as research departments, clerical work, and students of Kaivaldhama S.M.Y. Saamiti, Lonavala, Pune. Each set consisting of two groups. The two groups of set a are divided according to age group, while other two groups of set b consists yoga and non-yoga subjects the same group. Group I includes students of mixed gender (n=15) in the age group of 40-60 practicing yoga at least above five years. Group III consists of male competent yoga instructors (n=6) within 25-50 age group, working in S.M.Y.M. Samiti, Kaivalyadhama, Lonavala, and teaching yoga more than five years. Group IV has been treated as Control (n=12). The group includes male staff members performing administrative and clerical works except on female, all in the age group from 25-50 years of the same institute.